

REMARKS

Favorable reconsideration of this application, as presently amended and in light of the following discussion, is respectfully requested.

Claims 1-24 are currently pending. Claims 1-4, 6, 8, 10, and 15-24 have been amended. The changes to the claims are supported by the originally filed specification and do not add new matter.¹

In the outstanding Office Action, Claim 16 was objected to as containing an informality; Claims 16, 20, and 24 under 35 U.S.C. § 101 as being directed to non-statutory subject matter; and Claims 1-24 were rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent Application Publication No. 2003/0128693 to Segal in view of U.S. Patent No. 7,058,706 to Iyer et al. (hereinafter “Iyer”).

CLAIM OBJECTION

Regarding the objection to Claim 16, Claim 16 has been amended to clarify that the search packet reception node has an address stored in the storing *step*. Accordingly, the objection to Claim 16 is believed to have been overcome.

REJECTION UNDER 35 U.S.C. § 101

Regarding the rejections of Claims 16, 20, and 24 under 35 U.S.C. § 101, those claims have been amended to be directed to a “non-transitory” computer-readable storage medium, as required by the Office Action. Accordingly, the rejections of Claims 16, 20, and 24 under 35 U.S.C. § 101 are believed to have been overcome.

Further, the specification has been amended to recite a “non-transitory computer readable medium,” as suggested by the Office Action. It is noted that the term “non-

¹ See, e.g., Figs. 6 and 22; and the discussion related thereto in the originally filed specification.

"transitory" is a limitation of the medium itself (i.e., tangible, not a signal) as opposed to a limitation on data storage persistency (e.g., RAM vs. ROM).

REJECTION UNDER 35 U.S.C. § 103

Amended Claim 1 is directed to

[a] node search method for searching for a plurality of new service nodes for providing services to a mobile node, in a mobile communication system including a plurality of service nodes and the mobile node, each of the service nodes and the mobile node having a node storage unit configured to store addresses of service nodes, the node search method comprising:

transmitting a node search packet to search for the plurality of new service nodes from a search node, which searches for the plurality of new service nodes, to a search packet reception node having an address stored in the node storage unit of the search node;

transmitting a node notice request packet from the search packet reception node to each of a plurality of peripheral nodes having addresses stored in the node storage unit of the search packet reception node, in response to receiving the node search packet, the addresses of the plurality of peripheral nodes not being stored in the node storage unit of the search node;

returning a node notice packet from the search packet reception node to the search node, in response to receiving the node search packet;

transmitting the node notice packet from each of the plurality of peripheral nodes to the search node, based only on a determination that the node notice request packet has been received by the respective peripheral node;

detecting the plurality of new service nodes based on the returned node notice packets from the plurality of peripheral nodes, by the search node;

updating the node storage unit of the search node based on the plurality of new service nodes detected by the search node; and

transmitting data for investigating node information from the search node to the detected plurality of new service nodes, the data for investigating node information including a request for a delay value and a number of hops in a packet

transmission between the search node and the detected plurality of new service nodes.

Regarding the rejection of Claim 1 under 35 U.S.C. § 103(a), Segal is directed to a method and apparatus for a telecommunications network to communicate using an Internet protocol. The Office Action apparently cites the Segal use of ENUM for teaching all the features of Claim 1, except for the a transmitting data for investigating node information step.

However, it is respectfully submitted that Segal fails to at least disclose detecting the plurality of new service nodes based on the returned node notice packets from the plurality of peripheral nodes, by the search node. Rather, as noted in the Office Action, Segal simply discusses using ENUM to identify/discover the IP address **of a target service application node** and/or to identify/discover the service handling capability of a public land mobile network (PLMN).² For example, Segal discusses first and second scenarios for the discovery and address retrieval **of an end node** (SUA as an example) residing in a PLMN 1 (PLMN 500) by PLMN N (PLMN 600) via a DNS/ENUM query.³ Segal does not disclose **detecting a plurality of new service nodes**, or that the detecting is **based on returned node notice packets from a plurality of peripheral nodes**.

Further, it is respectfully submitted Iyer fails to remedy the deficiencies of Segal, as discussed above. Iyer is directed to a method and apparatus for determining latency between multiple servers and a client. The Office Action cites Iyer for teaching the transmission of data for investigating node information. However, it is respectfully submitted that Iyer fails to at least disclose detecting the plurality of new service nodes based on the returned node notice packets from the plurality of peripheral nodes, by the search node. Moreover, the Office Action does not cite Iyer for teaching the detection of a new service node.

² See Segal, paragraph [0013].

³ Id. at paragraphs [0020]-[0022]

Thus, no matter how the teachings of Segal and Iyer are combined, the combination does not teach or suggest at least the detecting step of Claim 1. According, it is respectfully submitted that Claim 1 (and all associated dependent claims) patentably defines over any proper combination of Segal and Iyer.

Amended Claims 2, 15, and 16 recite limitations analogous to the limitations recited in Claim 1, although of differing class and/or scope. Accordingly, for reasons analogous to the reasons stated above for the patentability of Claim 1, Applicants respectfully submit that Claims 2, 15, and 16 (and all associated dependent claims) patentably define over any proper combination of Segal and Iyer.

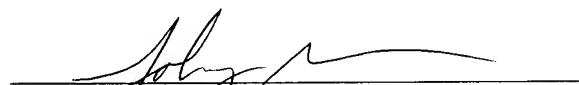
CONCLUSION

Thus, it is respectfully submitted that independent Claims 1, 2, 15, and 16 (and all associated dependent claims) patentably define over Segal and Iyer.

Consequently, in view of the present amendment and in light of the above discussion, the outstanding grounds for rejection are believed to have been overcome. The application as amended herewith is believed to be in condition for formal allowance. An early and favorable action to that effect is respectfully requested.

Respectfully submitted,

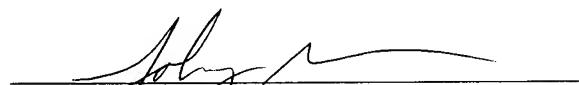
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